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Hab. apud Insulam Mindanado.

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[^0]Among the various causes which produce barrenness in lands, has been enumerated the presence of magnesia, because it had been observed that the various magnesian soils are sterile. This opinion has begun to lose credit, since Bergmann, who examined the composition of fertile soils, considered magnesia as forming one of their principal constituents.

Prof. Giobert has performed a number of experiments to inquire into the action of native magnesia, which is found in numerous cultivated soils. In the environs of Castellamonte and of Baldissero, this substance is abundantly diffused in the soils cultivated with great success, and which exhibit a vigorous vegetation. There are many districts in Piedmont and elsewhere, where the bi-carbonate of lime and of magnesia is abundant in the cultivated lands, which produce beautiful plants. Giobert concluded from these experiments; 1st, that native carbonated magnesia is not injurious to the various functions of vegetables; 2nd, that on account of the solubility of magnesia in an excess of carbonic acid this earth can exercise an action analogous to that of lime ; 3rd, that a magnesian soil may become fertile when the necessary manure is employed.

From these facts naturally proceeds the conclusion, that if the magnesia was dissolved in an excess of carbonic acid and water, and had entered like the lime into the composition of the sap, it ought to be found in the plants with the potash, lime, oxide of iron, \&c. M. Abbene has ascertained this by the analysis of the ashes of plants which had grown in magnesiferous mixtures. Moreover, he endeavoured to find, by comparative experiments, whether the in-
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## METEOROLOGICAL OBSERVATIONS FOR JANUARY, 1839.

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Boston.-Jan. 1. Cloudy. 2. Stormy. 3. Fine: stormy night. 4. Cloudy : rain early A.m. 5. Fine. 6. Fine : snow p.M. 7. Stormy : blew a hurricane all day. 8. Stormy. 9, 10. Fine. 11. Cloudy : rain early A.m. : rain A.m. 12, 13. Cloudy. 14. Fine. 15. Stormy. 16, 17. Fine. 18. Fine : snow p.m. 19. Clondy : rain early A.m. : rain p.m. 20. Cloudy: rain early A.м. 21. Rain. 22. Fine: snow early A.m. 23, 24. Cloudy. 25. Fine : rain p.m. 26. Cloudy : snow early a.m. : snow p.м. ${ }^{2}$. Cloudy : rain a.m. 28. Cloudy. 29. Fine: rain and snow p.m. 30. Fine: rain p.m. 31. Cloudy : large fall of snow early A.m. : more snow in the day, with hail.

Applegarth Manse, Dumfries-shire.-Jan. 1. High wind and sharp showers. 2. Generally clear : occasional showers. 3. Very boisterous. 4. Calmed a little : stormy p.m. 5. Wind strong: snow. 6. Frost and snow : rain p.m. 7. Fearful storm : rain and sleet. 8. More calm : more snow. 9. Frost : snow lying three inches. 10. Thaw : snow melting. 11. Rain moderate : flood. 12. Moderate day: sunshine. 13. Frequent heavy showers. 14. Showery: aurora borealis. 15. Frosty after a boisterous night. 16. Clear frost: wind lulled. 17. Calm and frosty, and sunny. 18. Frost A.M. : rain at night. 19. Temperate: heavy flood. 20. Shower A.m.: still mild. 21. Frost A.m. : increasing p.m. 22. Clear frost : overcast p.m. 23. Frost again: slight thaw P.M. 24. Thaw : a few drops of rain. 25. Fine day, without frost. 26. Fine frosty day. 27. Calm and clear frost. 28. Frost : slight fall of snow. 29. Frost : storm of snow. 30. Frost; snow and high wind. S1. Frost : still snowing: nine inches deep.
fluence of magnesia on vegetation is analogous to that of lime. The following are the conclusions he arrives at: 1st, Native magnesia is not only not injurious to germination, vegetation, and fructification of plants, but on the contrary, appears to be favourable to these functions. 2nd, Magnesia, being soluble in an excess of carbonic acid, has on vegetation an action analogous to that of lime; and when a soil contains magnesia not sufficiently carbonated, this defect may be remedied by the addition of manure, which by its decomposition furnishes the necessary quantity of carbonic acid; the amelioration will be much more efficacious if the soil be frequently disturbed, as then the air will better exercise its action. 3rd, When lime and magnesia exist in arable lands, the former is absorbed in preference by the plants on account of its greater affinity for carbonic acid. 4th, In barren magnesian lands, it is not to the magnesia that the sterility must be attributed, but to the cohesive state of their parts, to the want of manure, of clay, or of other composts, to the large quantity of oxide of iron, \&c. 5th, Barren magnesian soils may be rendered fertile by means of calcariferous substances, as rubbish, chalk, ashes, marl, \&c., provided the other conditions be fulfilled.Journal de Pharmacie de Janvier, 1839.

## METEOROLOGICAL OBSERVATIONS FOR JANUARY, 1839.

Chiswick.-Jan. 1. Overcast. 2, 3. Cloudy and fine. 4. Rain: clear. 5. Clear and very fine. 6. Overcast : sleet : rain at night, with wind increasing to a hurricane. 7. Boisterous. 8. Clear : slight snow. 9, 10. Frosty. 11. Overcast : rain. 12. Very fine. 13. Cloudy and windy, with slight showers. 14. Rain. 15. Very clear. 16. Fine, but cold. 17, 18. Sharp frost : clear. 19. Stormy and wet: clear at night, with aurora borealis. 20. Fine: rain. 21. Rain. 22. Clear and cold. 23. Overcast and fine. 24. Hazy : fine. 25. Fine. 26. Fine : slight snow. 27. Cloudy and cold. 28. Frosty : slight snow at night. 29. Clear : snow. 30. Sharp frost : slightly overcast : stormy with snow : tempestuous at night. 31. Snowing.

Boston.-Jan. 1. Cloudy. 2. Stormy. 3. Fine: stormy night. 4. Cloudy : rain early A.m. 5. Fine. 6. Fine : snow p.M. 7. Stormy : blew a hurricane all day. 8. Stormy. 9, 10. Fine. 11. Cloudy : rain early A.m. : rain A.m. 12, 13. Cloudy. 14. Fine. 15. Stormy. 16, 17. Fine. 18. Fine : snow p.m. 19. Clondy : rain early A.m. : rain p.m. 20. Cloudy: rain early A.м. 21. Rain. 22. Fine: snow early A.m. 23, 24. Cloudy. 25. Fine : rain p.m. 26. Cloudy : snow early a.m. : snow p.м. ${ }^{2}$. Cloudy : rain a.m. 28. Cloudy. 29. Fine: rain and snow p.m. 30. Fine: rain p.m. 31. Cloudy : large fall of snow early A.m. : more snow in the day, with hail.

Applegarth Manse, Dumfries-shire.-Jan. 1. High wind and sharp showers. 2. Generally clear : occasional showers. 3. Very boisterous. 4. Calmed a little : stormy p.m. 5. Wind strong: snow. 6. Frost and snow : rain p.m. 7. Fearful storm : rain and sleet. 8. More calm : more snow. 9. Frost : snow lying three inches. 10. Thaw : snow melting. 11. Rain moderate : flood. 12. Moderate day: sunshine. 13. Frequent heavy showers. 14. Showery: aurora borealis. 15. Frosty after a boisterous night. 16. Clear frost: wind lulled. 17. Calm and frosty, and sunny. 18. Frost A.M. : rain at night. 19. Temperate: heavy flood. 20. Shower A.m.: still mild. 21. Frost A.m. : increasing p.m. 22. Clear frost : overcast p.m. 23. Frost again: slight thaw P.M. 24. Thaw : a few drops of rain. 25. Fine day, without frost. 26. Fine frosty day. 27. Calm and clear frost. 28. Frost : slight fall of snow. 29. Frost : storm of snow. 30. Frost; snow and high wind. S1. Frost : still snowing: nine inches deep.

| Days of Month. 1839. Jan. | Barometer. |  |  |  |  |  | Thermometer. |  |  |  |  |  |  |  | Wind. |  |  |  | Rain. |  |  |  | Dewpoint. <br> Lond.: Roy. Soc. 9 a.m. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | London: <br> Roy. Soc. 9 a.m. | Chiswick. |  | Boston. 8 $\frac{1}{2}$ a.m. | Dumfries-shire. |  | London: Roy. Soc. |  |  | Chiswick. |  |  | $\begin{aligned} & \begin{array}{l} \text { Dumfries- } \\ \text { shire. } \end{array} \\ & \hline \text { 9a.m. } \mid \text { 9p.m } \end{aligned}$ |  | London Roy.Soc. 9 a.m. |  | Bost. | Dum. fries_ shire. | London: Roy.Soc. 9 a.m. |  |  |  |  |
|  |  | Max. | Min. |  | 9 a.m. | 8ta p.m. | $9 \mathrm{a} . \mathrm{m}$ | Max | in. | Max. | Min. |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. | $30 \cdot 342$ | $30 \cdot 391$ | 30.081 | $29 \cdot 80$ | $30 \cdot 00$ | 29.87 | $40 \cdot 8$ | 41.4 | $36 \cdot 2$ $40 \cdot 8$ | 50 | 43 | 43 | 44 |  | s. |  | w. |  |  |  |  |  |  |
| 2. | 30.050 | $30 \cdot 102$ | 30.074 | 29.52 | $29 \cdot 96$ | 29.95 | $45 \cdot 4$ | $49 \cdot 3$ $46 \cdot 2$ | $40 \cdot 8$ $44 \cdot 2$ | 49 | 42 | 42 | 36 | $36 \frac{1}{2}$ 45 | w. | w. | Nw. | wbys. | ... | $\ldots$ | .. | $\ldots$ | 35 38 |
| 3. | 29.944 | 29.958 29.773 | 29.672 29.548 | 29.41 | 29.70 29.24 | 29.25 29.43 | $45 \cdot 3$ | $46 \cdot 2$ $47 \cdot 2$ | $44 \cdot 2$ 41.9 | 49 | 40 | 41.5 | 44 37 | 45 | sw. | sw. | calm | w. | . 050 | $\stackrel{04}{ }$ | $\ldots$ | . | 40 |
| 4. | 29.530 | 29.773 | 29.548 | 29. | 29.24. | 29.43 | $42 \cdot 0$ | $47 \cdot 2$ | $41 \cdot 9$ | 47 | 31 | 43 | 37 | 35 | s. | w. | calm | wbys | -050 | $\cdot 01$ | -06 |  | 41 |
| 5. | $29 \cdot 682$ | 29.795 | $29 \cdot 641$ | 29.42 | 29.41 | 29.30 | $38 \cdot 4$ | $39 \cdot 0$ |  | 44 | 32 | 34 | 34 20 | 32 34 | S. | SW. |  | sw. | 7 |  |  | 1-16 | 36 |
| 6. | 29.718 | 29.735 | $29 \cdot 147$ | $29 \cdot 30$ | 29.55 | 28.99 | $35 \cdot 7$ | $39 \cdot 0$ 50.3 | $34 \cdot 2$ $35 \cdot 0$ | 53 | 32 | 31 | 20 | 34 35 | s. | SSE. | calm | sw. | -027 | $\cdot 33$ |  | 116 | 31 |
| © 7. | 29.072 | $29 \cdot 343$ | 29.096 | $28 \cdot 42$ | 28.26 | 29.00 | $44 \cdot 4$ | $50 \cdot 3$ $46 \cdot 3$ | $35 \cdot 0$ 34.8 | 47 | 32 | 45 | 28 | [ | s. | W | w. | w | $\cdot 227$ | -10 |  |  | 37 |
| 8 | 29.538 | $29 \cdot 592$ | 29.526 | $29^{\circ}$ | 29.30 | $29 \cdot 40$ | $34 \cdot 7$ | $46 \cdot 3$ <br> 39.8 | 34.8 33.6 | 35 | 31 | 34 | 28 | 29 22 | w. | NW | N. | w | -047 |  |  |  | 32 |
| 9. | $29 \cdot 716$ | $30 \cdot 210$ | 29.735 | 29.36 | 29.78 30.08 | $30 \cdot 10$ | $34 \cdot 2$ | $39 \cdot 8$ 35 | $33 \cdot 6$ 29.3 | 36 | 21 | 27 | 20 | 42 | NW. | NW. | w. | N. |  |  | ... |  | 31 |
| 10. | $30 \cdot 274$ | $30 \cdot 304$ | $30 \cdot 250$ | $29 \cdot 88$ | 30.08 | 29.94 | $32 \cdot 8$ | $35 \cdot 8$ <br> $43 \cdot 2$ | 29.3 $32 \cdot 6$ | 44 | 31 | 28 | 34 | 41 | S. | S. | calm | s. |  |  |  |  | 30 |
| 11. | $30 \cdot 150$ | $30 \cdot 181$ | $30 \cdot 130$ | $29 \cdot 60$ | $29 \cdot 80$ | 29.90 | $42 \cdot 4$ | $43 \cdot 2$ | 32 | 50 | 42 | 44.5 | $43 \frac{1}{2}$ | 42 | S. | sw. | sw. | sw. | -027 | . 06 | $\cdot 20$ |  | 35 |
| 12. | 50.180 | $30 \cdot 232$ | $30 \cdot 202$ | $29 \cdot 70$ | 30.09 | 30.03 | $47 \cdot 7$ | $50 \cdot 3$ | 42.7 | 51 | 39 | 43 | 40 | 38 | NNW | w. | calm | sw. | -044 |  | $\cdot 07$ | 0.80 | 41 |
| 13. | 30.020 29.968 | 30.049 29.970 | $29 \cdot 994$ 29.781 | 29.45 | 29.69 29.75 | 29.80 29.63 | $49 \cdot 8$ | 50.3 51.8 | $42 \cdot 7$ $43 \cdot 2$ | 52 | 41 | 50 | 46 | 41 34 | sw var | w. | w. | w. |  | -01 | , | - | 41 |
| 14. | 29.968 | 29.970 | 29.781 | 29.42 | 29.75 | 29.63 | 44.9 | 51.8 | $43 \cdot 2$ $36 \cdot 0$ | 46 | 34 | 41 | 39 | 34 | sw. | w. | calm | sw. | ... | $\cdot 09$ | $\ldots$ |  | 42 |
| (3)15. | 29.818 | $30 \cdot 033$ | 29.850 | 29.27 | $29 \cdot 68$ | 29.95 | $36 \cdot 6$ | 47.7 | 36.0 33.0 | 44 | 31 | 36 | 36 | 33 $\frac{1}{2}$ | w. | w. | w. | NNW. | $\cdot 127$ |  |  |  | 35 |
| 16. | 29.944 | 30.024 | 29.951 | 29.55 | $30 \cdot 00$ | $30 \cdot 06$ | $35 \cdot 3$ | $43^{\circ} 2$ | 33.0 | 41 | 26 | 30 | 32 | 29 | W. | w. | calm | Nw. |  | $\ldots$ |  |  | 32 |
| 17. | 30.012 | $30 \cdot 170$ | 30.045 | $29 \cdot 65$ | $30 \cdot 16$ | 30.20 | $30 \cdot 7$ | 40.0 | 30.6 29.5 | 38 | 23 | 29.5 | 28 | 29 | W N | NW. | Nw. | NnW. |  |  |  |  | 28 |
| 18. | $30 \cdot 172$ | $30 \cdot 204$ | $30 \cdot 074$ | $29 \cdot 80$ | $30 \cdot 19$ | 29.80 | $29 \cdot 7$ | $38 \cdot 0$ | 29.5 29.7 | 44 | 27 | 27 | 21 | 37 | W. | NW. | NW. | N | ... |  |  |  | 29 |
| 19. | 29.572 | 29.949 | $29 \cdot 392$ | $29 \cdot 10$ | 29.39 | 29.68 | $42 \cdot 9$ | $44^{\circ} 0$ 47.8 | $29 \cdot 7$ $35 \cdot 0$ | 50 | 29 | $43 \cdot 5$ | 37 | 39 | SE. | sw. | sw. | N. |  | $\cdot 13$ | -08 |  | 35 |
| 20. | 30.008 | 30.038 | $29 \cdot 729$ | 29.55 | 29.82 | 29.71 | $38 \cdot 6$ | $47 \cdot 8$ | $35 \cdot 0$ | 51 | 39 | 39 | 37 | 39 | sw. | SW. | calm | sw. | -177 | -16 | -09 |  | 33 |
| 21. | $29 \cdot 658$ | 29.877 | $29 \cdot 677$ | $29 \cdot 80$ | 29.75 | $30 \cdot 03$ | $48 \cdot 7$ | $49^{\circ} 4$ | $38 \cdot 2$ 33.7 | 50 | 32 | 40 | 34 | 40 | SW, | w. | calm | NE. | 175 | 34 | $\cdot 50$ |  | 38 |
| D 22. | $30 \cdot 090$ | $30 \cdot 445$ | $30 \cdot 112$ | 29.73 | $30 \cdot 34$ | $30 \cdot 58$ | 34.7 | $49^{\circ} 2$ | $33 \cdot 7$ $34 \cdot 6$ | 37 | 33 | 32 | $32 \frac{1}{2}$ | 32 | N. | N. | calm | NE | -333 | ... | - 05 | 0.48 | 33 |
| 23. | 30.530 | 30.551 | 30.494 | $30 \cdot 15$ | $30 \cdot 60$ | $30 \cdot 55$ | $36 \cdot 2$ | 37.4 | 34.6 33.7 | 42 | 30 | 34 | 29 | 36 | W. | W. | N. | sw. | ... | $\ldots$ | ... | 04 | 33 |
| 24. | 30.532 | $30 \cdot 573$ | 30-308 | 30-12 | 30.53 | $30 \cdot 40$ | $36 \cdot 2$ | $40 \cdot 4$ | 33.7 36.2 | 48 | 37 | 36 | 40 | 40 | Sw. | W. | calm | N |  |  |  |  | 32 |
| 25. | 30.088 | 30.108 | $29 \cdot 989$ | $29 \cdot 65$ | 30.13 | 30.20 | $43 \cdot 0$ | 43.8 | $36 \cdot 2$ $34 \cdot 4$ | 49 | 32 | 43 | 39 | $38 \frac{1}{2}$ | w var. | w. | w. | N | ... |  |  |  | 37 |
| 26. | $30 \cdot 156$ | $30 \cdot 388$ | 30.178 | $29 \cdot 87$ | $30 \cdot 50$ | $30 \cdot 60$ | $35 \cdot 3$ | $47 \cdot 3$ | 34.4 | 38 | 30 | 35 | 33 | 32 | N. | NE. | calm | NE | ... | .. | $\cdot 05$ |  | 32 |
| 27. | $30 \cdot 340$ | $30 \cdot 374$ | $30 \cdot 246$ | 30.05 | $30 \cdot 58$ | $30 \cdot 42$ | $33 \cdot 3$ | 37.5 | 31-2 | 35 | 26 | $36 \cdot 5$ | 31 | 26 | NE. | NE. | calm | N . | . | ... |  |  | 28 |
| $\begin{array}{r}28 . \\ \hline 29\end{array}$ | $30 \cdot 006$ | 30.064 | $29 \cdot 682$ | $29 \cdot 73$ | 30.03 | $29 \cdot 74$ | $32 \cdot 7$ | $35 \cdot 6$ | 31.6 31.6 | 36 | 29 | 32 | 27 | 30 | NW. | NE. | calm | NW. |  |  | -07 |  | 29 |
| C29. | 29.548 | 29.591 | $29 \cdot 155$ | $29 \cdot 22$ | 29.50 | $29 \cdot 29$ | $33 \cdot 2$ | $37 \cdot 3$ | 31.6 | 39 | 17 | 29 | 27 | 22 | w. | W. | calm | sw. |  |  |  |  | 28 |
| 30. 31. | $29 \cdot 226$ | $29 \cdot 284$ | $29 \cdot 039$ | $28 \cdot 92$ | 29.23 | $29 \cdot 30$ | 27.7 | 36:0 | 23.7 25.5 | 34 | 27 | 24 | 26 | 25 | SW. | w. | NW. | NW. | -194 |  | -04 |  | 23 |
| 31. | 29.150 | $29 \cdot 729$ | $29 \cdot 141$ | 28.83 | 29.58 | 29.97 | $30 \cdot 5$ | $32 \cdot 3$ | 25 | 37 | 22 | 29 | 31 | 30 | w. | w. | NW | W |  |  | $\cdot 19$ |  | 23 23 |
| Mean. | 29.904 | 30.033 | 29.804 | 29.49 | 29.790 | 30.450 | $38 \cdot 2$ | $43 \cdot 3$ | 34.7 | $43 \cdot 74$ | $31 \cdot 64$ | $36 \cdot 1$ | 33. | 7 |  |  |  |  |  | $1 \cdot 27$ | 40 | $2 \cdot 44$ |  |


| Days of Month. 1839. Jan. | Barometer. |  |  |  |  |  | Thermometer. |  |  |  |  |  |  |  | Wind. |  |  |  | Rain. |  |  |  | Dewpoint. <br> Lond.: Roy. Soc. 9 a.m. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | London: <br> Roy. Soc. 9 a.m. | Chiswick. |  | Boston. 8 $\frac{1}{2}$ a.m. | Dumfries-shire. |  | London: Roy. Soc. |  |  | Chiswick. |  |  | $\begin{aligned} & \begin{array}{l} \text { Dumfries- } \\ \text { shire. } \end{array} \\ & \hline \text { 9a.m. } \mid \text { 9p.m } \end{aligned}$ |  | London Roy.Soc. 9 a.m. |  | Bost. | Dum. fries_ shire. | London: Roy.Soc. 9 a.m. |  |  |  |  |
|  |  | Max. | Min. |  | 9 a.m. | 8ta p.m. | $9 \mathrm{a} . \mathrm{m}$ | Max | in. | Max. | Min. |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. | $30 \cdot 342$ | $30 \cdot 391$ | 30.081 | $29 \cdot 80$ | $30 \cdot 00$ | 29.87 | $40 \cdot 8$ | 41.4 | $36 \cdot 2$ $40 \cdot 8$ | 50 | 43 | 43 | 44 |  | s. |  | w. |  |  |  |  |  |  |
| 2. | 30.050 | $30 \cdot 102$ | 30.074 | 29.52 | $29 \cdot 96$ | 29.95 | $45 \cdot 4$ | $49 \cdot 3$ $46 \cdot 2$ | $40 \cdot 8$ $44 \cdot 2$ | 49 | 42 | 42 | 36 | $36 \frac{1}{2}$ 45 | w. | w. | Nw. | wbys. | ... | $\ldots$ | .. | $\ldots$ | 35 38 |
| 3. | 29.944 | 29.958 29.773 | 29.672 29.548 | 29.41 | 29.70 29.24 | 29.25 29.43 | $45 \cdot 3$ | $46 \cdot 2$ $47 \cdot 2$ | $44 \cdot 2$ 41.9 | 49 | 40 | 41.5 | 44 37 | 45 | sw. | sw. | calm | w. | . 050 | $\stackrel{04}{ }$ | $\ldots$ | . | 40 |
| 4. | 29.530 | 29.773 | 29.548 | 29. | 29.24. | 29.43 | $42 \cdot 0$ | $47 \cdot 2$ | $41 \cdot 9$ | 47 | 31 | 43 | 37 | 35 | s. | w. | calm | wbys | -050 | $\cdot 01$ | -06 |  | 41 |
| 5. | $29 \cdot 682$ | 29.795 | $29 \cdot 641$ | 29.42 | 29.41 | 29.30 | $38 \cdot 4$ | $39 \cdot 0$ |  | 44 | 32 | 34 | 34 20 | 32 34 | S. | SW. |  | sw. | 7 |  |  | 1-16 | 36 |
| 6. | 29.718 | 29.735 | $29 \cdot 147$ | $29 \cdot 30$ | 29.55 | 28.99 | $35 \cdot 7$ | $39 \cdot 0$ 50.3 | $34 \cdot 2$ $35 \cdot 0$ | 53 | 32 | 31 | 20 | 34 35 | s. | SSE. | calm | sw. | -027 | $\cdot 33$ |  | 116 | 31 |
| © 7. | 29.072 | $29 \cdot 343$ | 29.096 | $28 \cdot 42$ | 28.26 | 29.00 | $44 \cdot 4$ | $50 \cdot 3$ $46 \cdot 3$ | $35 \cdot 0$ 34.8 | 47 | 32 | 45 | 28 | [ | s. | W | w. | w | $\cdot 227$ | -10 |  |  | 37 |
| 8 | 29.538 | $29 \cdot 592$ | 29.526 | $29^{\circ}$ | 29.30 | $29 \cdot 40$ | $34 \cdot 7$ | $46 \cdot 3$ <br> 39.8 | 34.8 33.6 | 35 | 31 | 34 | 28 | 29 22 | w. | NW | N. | w | -047 |  |  |  | 32 |
| 9. | $29 \cdot 716$ | $30 \cdot 210$ | 29.735 | 29.36 | 29.78 30.08 | $30 \cdot 10$ | $34 \cdot 2$ | $39 \cdot 8$ 35 | $33 \cdot 6$ 29.3 | 36 | 21 | 27 | 20 | 42 | NW. | NW. | w. | N. |  |  | ... |  | 31 |
| 10. | $30 \cdot 274$ | $30 \cdot 304$ | $30 \cdot 250$ | $29 \cdot 88$ | 30.08 | 29.94 | $32 \cdot 8$ | $35 \cdot 8$ <br> $43 \cdot 2$ | 29.3 $32 \cdot 6$ | 44 | 31 | 28 | 34 | 41 | S. | S. | calm | s. |  |  |  |  | 30 |
| 11. | $30 \cdot 150$ | $30 \cdot 181$ | $30 \cdot 130$ | $29 \cdot 60$ | $29 \cdot 80$ | 29.90 | $42 \cdot 4$ | $43 \cdot 2$ | 32 | 50 | 42 | 44.5 | $43 \frac{1}{2}$ | 42 | S. | sw. | sw. | sw. | -027 | . 06 | $\cdot 20$ |  | 35 |
| 12. | 50.180 | $30 \cdot 232$ | $30 \cdot 202$ | $29 \cdot 70$ | 30.09 | 30.03 | $47 \cdot 7$ | $50 \cdot 3$ | 42.7 | 51 | 39 | 43 | 40 | 38 | NNW | w. | calm | sw. | -044 |  | $\cdot 07$ | 0.80 | 41 |
| 13. | 30.020 29.968 | 30.049 29.970 | $29 \cdot 994$ 29.781 | 29.45 | 29.69 29.75 | 29.80 29.63 | $49 \cdot 8$ | 50.3 51.8 | $42 \cdot 7$ $43 \cdot 2$ | 52 | 41 | 50 | 46 | 41 34 | sw var | w. | w. | w. |  | -01 | , | - | 41 |
| 14. | 29.968 | 29.970 | 29.781 | 29.42 | 29.75 | 29.63 | 44.9 | 51.8 | $43 \cdot 2$ $36 \cdot 0$ | 46 | 34 | 41 | 39 | 34 | sw. | w. | calm | sw. | ... | $\cdot 09$ | $\ldots$ |  | 42 |
| (3)15. | 29.818 | $30 \cdot 033$ | 29.850 | 29.27 | $29 \cdot 68$ | 29.95 | $36 \cdot 6$ | 47.7 | 36.0 33.0 | 44 | 31 | 36 | 36 | 33 $\frac{1}{2}$ | w. | w. | w. | NNW. | $\cdot 127$ |  |  |  | 35 |
| 16. | 29.944 | 30.024 | 29.951 | 29.55 | $30 \cdot 00$ | $30 \cdot 06$ | $35 \cdot 3$ | $43^{\circ} 2$ | 33.0 | 41 | 26 | 30 | 32 | 29 | W. | w. | calm | Nw. |  | $\ldots$ |  |  | 32 |
| 17. | 30.012 | $30 \cdot 170$ | 30.045 | $29 \cdot 65$ | $30 \cdot 16$ | 30.20 | $30 \cdot 7$ | 40.0 | 30.6 29.5 | 38 | 23 | 29.5 | 28 | 29 | W N | NW. | Nw. | NnW. |  |  |  |  | 28 |
| 18. | $30 \cdot 172$ | $30 \cdot 204$ | $30 \cdot 074$ | $29 \cdot 80$ | $30 \cdot 19$ | 29.80 | $29 \cdot 7$ | $38 \cdot 0$ | 29.5 29.7 | 44 | 27 | 27 | 21 | 37 | W. | NW. | NW. | N | ... |  |  |  | 29 |
| 19. | 29.572 | 29.949 | $29 \cdot 392$ | $29 \cdot 10$ | 29.39 | 29.68 | $42 \cdot 9$ | $44^{\circ} 0$ 47.8 | $29 \cdot 7$ $35 \cdot 0$ | 50 | 29 | $43 \cdot 5$ | 37 | 39 | SE. | sw. | sw. | N. |  | $\cdot 13$ | -08 |  | 35 |
| 20. | 30.008 | 30.038 | $29 \cdot 729$ | 29.55 | 29.82 | 29.71 | $38 \cdot 6$ | $47 \cdot 8$ | $35 \cdot 0$ | 51 | 39 | 39 | 37 | 39 | sw. | SW. | calm | sw. | -177 | -16 | -09 |  | 33 |
| 21. | $29 \cdot 658$ | 29.877 | $29 \cdot 677$ | $29 \cdot 80$ | 29.75 | $30 \cdot 03$ | $48 \cdot 7$ | $49^{\circ} 4$ | $38 \cdot 2$ 33.7 | 50 | 32 | 40 | 34 | 40 | SW, | w. | calm | NE. | 175 | 34 | $\cdot 50$ |  | 38 |
| D 22. | $30 \cdot 090$ | $30 \cdot 445$ | $30 \cdot 112$ | 29.73 | $30 \cdot 34$ | $30 \cdot 58$ | 34.7 | $49^{\circ} 2$ | $33 \cdot 7$ $34 \cdot 6$ | 37 | 33 | 32 | $32 \frac{1}{2}$ | 32 | N. | N. | calm | NE | -333 | ... | - 05 | 0.48 | 33 |
| 23. | 30.530 | 30.551 | 30.494 | $30 \cdot 15$ | $30 \cdot 60$ | $30 \cdot 55$ | $36 \cdot 2$ | 37.4 | 34.6 33.7 | 42 | 30 | 34 | 29 | 36 | W. | W. | N. | sw. | ... | $\ldots$ | ... | 04 | 33 |
| 24. | 30.532 | $30 \cdot 573$ | 30-308 | 30-12 | 30.53 | $30 \cdot 40$ | $36 \cdot 2$ | $40 \cdot 4$ | 33.7 36.2 | 48 | 37 | 36 | 40 | 40 | Sw. | W. | calm | N |  |  |  |  | 32 |
| 25. | 30.088 | 30.108 | $29 \cdot 989$ | $29 \cdot 65$ | 30.13 | 30.20 | $43 \cdot 0$ | 43.8 | $36 \cdot 2$ $34 \cdot 4$ | 49 | 32 | 43 | 39 | $38 \frac{1}{2}$ | w var. | w. | w. | N | ... |  |  |  | 37 |
| 26. | $30 \cdot 156$ | $30 \cdot 388$ | 30.178 | $29 \cdot 87$ | $30 \cdot 50$ | $30 \cdot 60$ | $35 \cdot 3$ | $47 \cdot 3$ | 34.4 | 38 | 30 | 35 | 33 | 32 | N. | NE. | calm | NE | ... | .. | $\cdot 05$ |  | 32 |
| 27. | $30 \cdot 340$ | $30 \cdot 374$ | $30 \cdot 246$ | 30.05 | $30 \cdot 58$ | $30 \cdot 42$ | $33 \cdot 3$ | 37.5 | 31-2 | 35 | 26 | $36 \cdot 5$ | 31 | 26 | NE. | NE. | calm | N . | . | ... |  |  | 28 |
| $\begin{array}{r}28 . \\ \hline 29\end{array}$ | $30 \cdot 006$ | 30.064 | $29 \cdot 682$ | $29 \cdot 73$ | 30.03 | $29 \cdot 74$ | $32 \cdot 7$ | $35 \cdot 6$ | 31.6 31.6 | 36 | 29 | 32 | 27 | 30 | NW. | NE. | calm | NW. |  |  | -07 |  | 29 |
| C29. | 29.548 | 29.591 | $29 \cdot 155$ | $29 \cdot 22$ | 29.50 | $29 \cdot 29$ | $33 \cdot 2$ | $37 \cdot 3$ | 31.6 | 39 | 17 | 29 | 27 | 22 | w. | W. | calm | sw. |  |  |  |  | 28 |
| 30. 31. | $29 \cdot 226$ | $29 \cdot 284$ | $29 \cdot 039$ | $28 \cdot 92$ | 29.23 | $29 \cdot 30$ | 27.7 | 36:0 | 23.7 25.5 | 34 | 27 | 24 | 26 | 25 | SW. | w. | NW. | NW. | -194 |  | -04 |  | 23 |
| 31. | 29.150 | $29 \cdot 729$ | $29 \cdot 141$ | 28.83 | 29.58 | 29.97 | $30 \cdot 5$ | $32 \cdot 3$ | 25 | 37 | 22 | 29 | 31 | 30 | w. | w. | NW | W |  |  | $\cdot 19$ |  | 23 23 |
| Mean. | 29.904 | 30.033 | 29.804 | 29.49 | 29.790 | 30.450 | $38 \cdot 2$ | $43 \cdot 3$ | 34.7 | $43 \cdot 74$ | $31 \cdot 64$ | $36 \cdot 1$ | 33. | 7 |  |  |  |  |  | $1 \cdot 27$ | 40 | $2 \cdot 44$ |  |


| Days of Month. 1839. Jan. | Barometer. |  |  |  |  |  | Thermometer. |  |  |  |  |  |  |  | Wind. |  |  |  | Rain. |  |  |  | Dewpoint. <br> Lond.: Roy. Soc. 9 a.m. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | London: <br> Roy. Soc. 9 a.m. | Chiswick. |  | Boston. 8 $\frac{1}{2}$ a.m. | Dumfries-shire. |  | London: Roy. Soc. |  |  | Chiswick. |  |  | $\begin{aligned} & \begin{array}{l} \text { Dumfries- } \\ \text { shire. } \end{array} \\ & \hline \text { 9a.m. } \mid \text { 9p.m } \end{aligned}$ |  | London Roy.Soc. 9 a.m. |  | Bost. | Dum. fries_ shire. | London: Roy.Soc. 9 a.m. |  |  |  |  |
|  |  | Max. | Min. |  | 9 a.m. | 8ta p.m. | $9 \mathrm{a} . \mathrm{m}$ | Max | in. | Max. | Min. |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. | $30 \cdot 342$ | $30 \cdot 391$ | 30.081 | $29 \cdot 80$ | $30 \cdot 00$ | 29.87 | $40 \cdot 8$ | 41.4 | $36 \cdot 2$ $40 \cdot 8$ | 50 | 43 | 43 | 44 |  | s. |  | w. |  |  |  |  |  |  |
| 2. | 30.050 | $30 \cdot 102$ | 30.074 | 29.52 | $29 \cdot 96$ | 29.95 | $45 \cdot 4$ | $49 \cdot 3$ $46 \cdot 2$ | $40 \cdot 8$ $44 \cdot 2$ | 49 | 42 | 42 | 36 | $36 \frac{1}{2}$ 45 | w. | w. | Nw. | wbys. | ... | $\ldots$ | .. | $\ldots$ | 35 38 |
| 3. | 29.944 | 29.958 29.773 | 29.672 29.548 | 29.41 | 29.70 29.24 | 29.25 29.43 | $45 \cdot 3$ | $46 \cdot 2$ $47 \cdot 2$ | $44 \cdot 2$ 41.9 | 49 | 40 | 41.5 | 44 37 | 45 | sw. | sw. | calm | w. | . 050 | $\stackrel{04}{ }$ | $\ldots$ | . | 40 |
| 4. | 29.530 | 29.773 | 29.548 | 29. | 29.24. | 29.43 | $42 \cdot 0$ | $47 \cdot 2$ | $41 \cdot 9$ | 47 | 31 | 43 | 37 | 35 | s. | w. | calm | wbys | -050 | $\cdot 01$ | -06 |  | 41 |
| 5. | $29 \cdot 682$ | 29.795 | $29 \cdot 641$ | 29.42 | 29.41 | 29.30 | $38 \cdot 4$ | $39 \cdot 0$ |  | 44 | 32 | 34 | 34 20 | 32 34 | S. | SW. |  | sw. | 7 |  |  | 1-16 | 36 |
| 6. | 29.718 | 29.735 | $29 \cdot 147$ | $29 \cdot 30$ | 29.55 | 28.99 | $35 \cdot 7$ | $39 \cdot 0$ 50.3 | $34 \cdot 2$ $35 \cdot 0$ | 53 | 32 | 31 | 20 | 34 35 | s. | SSE. | calm | sw. | -027 | $\cdot 33$ |  | 116 | 31 |
| © 7. | 29.072 | $29 \cdot 343$ | 29.096 | $28 \cdot 42$ | 28.26 | 29.00 | $44 \cdot 4$ | $50 \cdot 3$ $46 \cdot 3$ | $35 \cdot 0$ 34.8 | 47 | 32 | 45 | 28 | [ | s. | W | w. | w | $\cdot 227$ | -10 |  |  | 37 |
| 8 | 29.538 | $29 \cdot 592$ | 29.526 | $29^{\circ}$ | 29.30 | $29 \cdot 40$ | $34 \cdot 7$ | $46 \cdot 3$ <br> 39.8 | 34.8 33.6 | 35 | 31 | 34 | 28 | 29 22 | w. | NW | N. | w | -047 |  |  |  | 32 |
| 9. | $29 \cdot 716$ | $30 \cdot 210$ | 29.735 | 29.36 | 29.78 30.08 | $30 \cdot 10$ | $34 \cdot 2$ | $39 \cdot 8$ 35 | $33 \cdot 6$ 29.3 | 36 | 21 | 27 | 20 | 42 | NW. | NW. | w. | N. |  |  | ... |  | 31 |
| 10. | $30 \cdot 274$ | $30 \cdot 304$ | $30 \cdot 250$ | $29 \cdot 88$ | 30.08 | 29.94 | $32 \cdot 8$ | $35 \cdot 8$ <br> $43 \cdot 2$ | 29.3 $32 \cdot 6$ | 44 | 31 | 28 | 34 | 41 | S. | S. | calm | s. |  |  |  |  | 30 |
| 11. | $30 \cdot 150$ | $30 \cdot 181$ | $30 \cdot 130$ | $29 \cdot 60$ | $29 \cdot 80$ | 29.90 | $42 \cdot 4$ | $43 \cdot 2$ | 32 | 50 | 42 | 44.5 | $43 \frac{1}{2}$ | 42 | S. | sw. | sw. | sw. | -027 | . 06 | $\cdot 20$ |  | 35 |
| 12. | 50.180 | $30 \cdot 232$ | $30 \cdot 202$ | $29 \cdot 70$ | 30.09 | 30.03 | $47 \cdot 7$ | $50 \cdot 3$ | 42.7 | 51 | 39 | 43 | 40 | 38 | NNW | w. | calm | sw. | -044 |  | $\cdot 07$ | 0.80 | 41 |
| 13. | 30.020 29.968 | 30.049 29.970 | $29 \cdot 994$ 29.781 | 29.45 | 29.69 29.75 | 29.80 29.63 | $49 \cdot 8$ | 50.3 51.8 | $42 \cdot 7$ $43 \cdot 2$ | 52 | 41 | 50 | 46 | 41 34 | sw var | w. | w. | w. |  | -01 | , | - | 41 |
| 14. | 29.968 | 29.970 | 29.781 | 29.42 | 29.75 | 29.63 | 44.9 | 51.8 | $43 \cdot 2$ $36 \cdot 0$ | 46 | 34 | 41 | 39 | 34 | sw. | w. | calm | sw. | ... | $\cdot 09$ | $\ldots$ |  | 42 |
| (3)15. | 29.818 | $30 \cdot 033$ | 29.850 | 29.27 | $29 \cdot 68$ | 29.95 | $36 \cdot 6$ | 47.7 | 36.0 33.0 | 44 | 31 | 36 | 36 | 33 $\frac{1}{2}$ | w. | w. | w. | NNW. | $\cdot 127$ |  |  |  | 35 |
| 16. | 29.944 | 30.024 | 29.951 | 29.55 | $30 \cdot 00$ | $30 \cdot 06$ | $35 \cdot 3$ | $43^{\circ} 2$ | 33.0 | 41 | 26 | 30 | 32 | 29 | W. | w. | calm | Nw. |  | $\ldots$ |  |  | 32 |
| 17. | 30.012 | $30 \cdot 170$ | 30.045 | $29 \cdot 65$ | $30 \cdot 16$ | 30.20 | $30 \cdot 7$ | 40.0 | 30.6 29.5 | 38 | 23 | 29.5 | 28 | 29 | W N | NW. | Nw. | NnW. |  |  |  |  | 28 |
| 18. | $30 \cdot 172$ | $30 \cdot 204$ | $30 \cdot 074$ | $29 \cdot 80$ | $30 \cdot 19$ | 29.80 | $29 \cdot 7$ | $38 \cdot 0$ | 29.5 29.7 | 44 | 27 | 27 | 21 | 37 | W. | NW. | NW. | N | ... |  |  |  | 29 |
| 19. | 29.572 | 29.949 | $29 \cdot 392$ | $29 \cdot 10$ | 29.39 | 29.68 | $42 \cdot 9$ | $44^{\circ} 0$ 47.8 | $29 \cdot 7$ $35 \cdot 0$ | 50 | 29 | $43 \cdot 5$ | 37 | 39 | SE. | sw. | sw. | N. |  | $\cdot 13$ | -08 |  | 35 |
| 20. | 30.008 | 30.038 | $29 \cdot 729$ | 29.55 | 29.82 | 29.71 | $38 \cdot 6$ | $47 \cdot 8$ | $35 \cdot 0$ | 51 | 39 | 39 | 37 | 39 | sw. | SW. | calm | sw. | -177 | -16 | -09 |  | 33 |
| 21. | $29 \cdot 658$ | 29.877 | $29 \cdot 677$ | $29 \cdot 80$ | 29.75 | $30 \cdot 03$ | $48 \cdot 7$ | $49^{\circ} 4$ | $38 \cdot 2$ 33.7 | 50 | 32 | 40 | 34 | 40 | SW, | w. | calm | NE. | 175 | 34 | $\cdot 50$ |  | 38 |
| D 22. | $30 \cdot 090$ | $30 \cdot 445$ | $30 \cdot 112$ | 29.73 | $30 \cdot 34$ | $30 \cdot 58$ | 34.7 | $49^{\circ} 2$ | $33 \cdot 7$ $34 \cdot 6$ | 37 | 33 | 32 | $32 \frac{1}{2}$ | 32 | N. | N. | calm | NE | -333 | ... | - 05 | 0.48 | 33 |
| 23. | 30.530 | 30.551 | 30.494 | $30 \cdot 15$ | $30 \cdot 60$ | $30 \cdot 55$ | $36 \cdot 2$ | 37.4 | 34.6 33.7 | 42 | 30 | 34 | 29 | 36 | W. | W. | N. | sw. | ... | $\ldots$ | ... | 04 | 33 |
| 24. | 30.532 | $30 \cdot 573$ | 30-308 | 30-12 | 30.53 | $30 \cdot 40$ | $36 \cdot 2$ | $40 \cdot 4$ | 33.7 36.2 | 48 | 37 | 36 | 40 | 40 | Sw. | W. | calm | N |  |  |  |  | 32 |
| 25. | 30.088 | 30.108 | $29 \cdot 989$ | $29 \cdot 65$ | 30.13 | 30.20 | $43 \cdot 0$ | 43.8 | $36 \cdot 2$ $34 \cdot 4$ | 49 | 32 | 43 | 39 | $38 \frac{1}{2}$ | w var. | w. | w. | N | ... |  |  |  | 37 |
| 26. | $30 \cdot 156$ | $30 \cdot 388$ | 30.178 | $29 \cdot 87$ | $30 \cdot 50$ | $30 \cdot 60$ | $35 \cdot 3$ | $47 \cdot 3$ | 34.4 | 38 | 30 | 35 | 33 | 32 | N. | NE. | calm | NE | ... | .. | $\cdot 05$ |  | 32 |
| 27. | $30 \cdot 340$ | $30 \cdot 374$ | $30 \cdot 246$ | 30.05 | $30 \cdot 58$ | $30 \cdot 42$ | $33 \cdot 3$ | 37.5 | 31-2 | 35 | 26 | $36 \cdot 5$ | 31 | 26 | NE. | NE. | calm | N . | . | ... |  |  | 28 |
| $\begin{array}{r}28 . \\ \hline 29\end{array}$ | $30 \cdot 006$ | 30.064 | $29 \cdot 682$ | $29 \cdot 73$ | 30.03 | $29 \cdot 74$ | $32 \cdot 7$ | $35 \cdot 6$ | 31.6 31.6 | 36 | 29 | 32 | 27 | 30 | NW. | NE. | calm | NW. |  |  | -07 |  | 29 |
| C29. | 29.548 | 29.591 | $29 \cdot 155$ | $29 \cdot 22$ | 29.50 | $29 \cdot 29$ | $33 \cdot 2$ | $37 \cdot 3$ | 31.6 | 39 | 17 | 29 | 27 | 22 | w. | W. | calm | sw. |  |  |  |  | 28 |
| 30. 31. | $29 \cdot 226$ | $29 \cdot 284$ | $29 \cdot 039$ | $28 \cdot 92$ | 29.23 | $29 \cdot 30$ | 27.7 | 36:0 | 23.7 25.5 | 34 | 27 | 24 | 26 | 25 | SW. | w. | NW. | NW. | -194 |  | -04 |  | 23 |
| 31. | 29.150 | $29 \cdot 729$ | $29 \cdot 141$ | 28.83 | 29.58 | 29.97 | $30 \cdot 5$ | $32 \cdot 3$ | 25 | 37 | 22 | 29 | 31 | 30 | w. | w. | NW | W |  |  | $\cdot 19$ |  | 23 23 |
| Mean. | 29.904 | 30.033 | 29.804 | 29.49 | 29.790 | 30.450 | $38 \cdot 2$ | $43 \cdot 3$ | 34.7 | $43 \cdot 74$ | $31 \cdot 64$ | $36 \cdot 1$ | 33. | 7 |  |  |  |  |  | $1 \cdot 27$ | 40 | $2 \cdot 44$ |  |


| Days of Month. 1839. Jan. | Barometer. |  |  |  |  |  | Thermometer. |  |  |  |  |  |  |  | Wind. |  |  |  | Rain. |  |  |  | Dewpoint. <br> Lond.: Roy. Soc. 9 a.m. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | London: <br> Roy. Soc. 9 a.m. | Chiswick. |  | Boston. 8 $\frac{1}{2}$ a.m. | Dumfries-shire. |  | London: Roy. Soc. |  |  | Chiswick. |  |  | $\begin{aligned} & \begin{array}{l} \text { Dumfries- } \\ \text { shire. } \end{array} \\ & \hline \text { 9a.m. } \mid \text { 9p.m } \end{aligned}$ |  | London Roy.Soc. 9 a.m. |  | Bost. | Dum. fries_ shire. | London: Roy.Soc. 9 a.m. |  |  |  |  |
|  |  | Max. | Min. |  | 9 a.m. | 8ta p.m. | $9 \mathrm{a} . \mathrm{m}$ | Max | in. | Max. | Min. |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. | $30 \cdot 342$ | $30 \cdot 391$ | 30.081 | $29 \cdot 80$ | $30 \cdot 00$ | 29.87 | $40 \cdot 8$ | 41.4 | $36 \cdot 2$ $40 \cdot 8$ | 50 | 43 | 43 | 44 |  | s. |  | w. |  |  |  |  |  |  |
| 2. | 30.050 | $30 \cdot 102$ | 30.074 | 29.52 | $29 \cdot 96$ | 29.95 | $45 \cdot 4$ | $49 \cdot 3$ $46 \cdot 2$ | $40 \cdot 8$ $44 \cdot 2$ | 49 | 42 | 42 | 36 | $36 \frac{1}{2}$ 45 | w. | w. | Nw. | wbys. | ... | $\ldots$ | .. | $\ldots$ | 35 38 |
| 3. | 29.944 | 29.958 29.773 | 29.672 29.548 | 29.41 | 29.70 29.24 | 29.25 29.43 | $45 \cdot 3$ | $46 \cdot 2$ $47 \cdot 2$ | $44 \cdot 2$ 41.9 | 49 | 40 | 41.5 | 44 37 | 45 | sw. | sw. | calm | w. | . 050 | $\stackrel{04}{ }$ | $\ldots$ | . | 40 |
| 4. | 29.530 | 29.773 | 29.548 | 29. | 29.24. | 29.43 | $42 \cdot 0$ | $47 \cdot 2$ | $41 \cdot 9$ | 47 | 31 | 43 | 37 | 35 | s. | w. | calm | wbys | -050 | $\cdot 01$ | -06 |  | 41 |
| 5. | $29 \cdot 682$ | 29.795 | $29 \cdot 641$ | 29.42 | 29.41 | 29.30 | $38 \cdot 4$ | $39 \cdot 0$ |  | 44 | 32 | 34 | 34 20 | 32 34 | S. | SW. |  | sw. | 7 |  |  | 1-16 | 36 |
| 6. | 29.718 | 29.735 | $29 \cdot 147$ | $29 \cdot 30$ | 29.55 | 28.99 | $35 \cdot 7$ | $39 \cdot 0$ 50.3 | $34 \cdot 2$ $35 \cdot 0$ | 53 | 32 | 31 | 20 | 34 35 | s. | SSE. | calm | sw. | -027 | $\cdot 33$ |  | 116 | 31 |
| © 7. | 29.072 | $29 \cdot 343$ | 29.096 | $28 \cdot 42$ | 28.26 | 29.00 | $44 \cdot 4$ | $50 \cdot 3$ $46 \cdot 3$ | $35 \cdot 0$ 34.8 | 47 | 32 | 45 | 28 | [ | s. | W | w. | w | $\cdot 227$ | -10 |  |  | 37 |
| 8 | 29.538 | $29 \cdot 592$ | 29.526 | $29^{\circ}$ | 29.30 | $29 \cdot 40$ | $34 \cdot 7$ | $46 \cdot 3$ <br> 39.8 | 34.8 33.6 | 35 | 31 | 34 | 28 | 29 22 | w. | NW | N. | w | -047 |  |  |  | 32 |
| 9. | $29 \cdot 716$ | $30 \cdot 210$ | 29.735 | 29.36 | 29.78 30.08 | $30 \cdot 10$ | $34 \cdot 2$ | $39 \cdot 8$ 35 | $33 \cdot 6$ 29.3 | 36 | 21 | 27 | 20 | 42 | NW. | NW. | w. | N. |  |  | ... |  | 31 |
| 10. | $30 \cdot 274$ | $30 \cdot 304$ | $30 \cdot 250$ | $29 \cdot 88$ | 30.08 | 29.94 | $32 \cdot 8$ | $35 \cdot 8$ <br> $43 \cdot 2$ | 29.3 $32 \cdot 6$ | 44 | 31 | 28 | 34 | 41 | S. | S. | calm | s. |  |  |  |  | 30 |
| 11. | $30 \cdot 150$ | $30 \cdot 181$ | $30 \cdot 130$ | $29 \cdot 60$ | $29 \cdot 80$ | 29.90 | $42 \cdot 4$ | $43 \cdot 2$ | 32 | 50 | 42 | 44.5 | $43 \frac{1}{2}$ | 42 | S. | sw. | sw. | sw. | -027 | . 06 | $\cdot 20$ |  | 35 |
| 12. | 50.180 | $30 \cdot 232$ | $30 \cdot 202$ | $29 \cdot 70$ | 30.09 | 30.03 | $47 \cdot 7$ | $50 \cdot 3$ | 42.7 | 51 | 39 | 43 | 40 | 38 | NNW | w. | calm | sw. | -044 |  | $\cdot 07$ | 0.80 | 41 |
| 13. | 30.020 29.968 | 30.049 29.970 | $29 \cdot 994$ 29.781 | 29.45 | 29.69 29.75 | 29.80 29.63 | $49 \cdot 8$ | 50.3 51.8 | $42 \cdot 7$ $43 \cdot 2$ | 52 | 41 | 50 | 46 | 41 34 | sw var | w. | w. | w. |  | -01 | , | - | 41 |
| 14. | 29.968 | 29.970 | 29.781 | 29.42 | 29.75 | 29.63 | 44.9 | 51.8 | $43 \cdot 2$ $36 \cdot 0$ | 46 | 34 | 41 | 39 | 34 | sw. | w. | calm | sw. | ... | $\cdot 09$ | $\ldots$ |  | 42 |
| (3)15. | 29.818 | $30 \cdot 033$ | 29.850 | 29.27 | $29 \cdot 68$ | 29.95 | $36 \cdot 6$ | 47.7 | 36.0 33.0 | 44 | 31 | 36 | 36 | 33 $\frac{1}{2}$ | w. | w. | w. | NNW. | $\cdot 127$ |  |  |  | 35 |
| 16. | 29.944 | 30.024 | 29.951 | 29.55 | $30 \cdot 00$ | $30 \cdot 06$ | $35 \cdot 3$ | $43^{\circ} 2$ | 33.0 | 41 | 26 | 30 | 32 | 29 | W. | w. | calm | Nw. |  | $\ldots$ |  |  | 32 |
| 17. | 30.012 | $30 \cdot 170$ | 30.045 | $29 \cdot 65$ | $30 \cdot 16$ | 30.20 | $30 \cdot 7$ | 40.0 | 30.6 29.5 | 38 | 23 | 29.5 | 28 | 29 | W N | NW. | Nw. | NnW. |  |  |  |  | 28 |
| 18. | $30 \cdot 172$ | $30 \cdot 204$ | $30 \cdot 074$ | $29 \cdot 80$ | $30 \cdot 19$ | 29.80 | $29 \cdot 7$ | $38 \cdot 0$ | 29.5 29.7 | 44 | 27 | 27 | 21 | 37 | W. | NW. | NW. | N | ... |  |  |  | 29 |
| 19. | 29.572 | 29.949 | $29 \cdot 392$ | $29 \cdot 10$ | 29.39 | 29.68 | $42 \cdot 9$ | $44^{\circ} 0$ 47.8 | $29 \cdot 7$ $35 \cdot 0$ | 50 | 29 | $43 \cdot 5$ | 37 | 39 | SE. | sw. | sw. | N. |  | $\cdot 13$ | -08 |  | 35 |
| 20. | 30.008 | 30.038 | $29 \cdot 729$ | 29.55 | 29.82 | 29.71 | $38 \cdot 6$ | $47 \cdot 8$ | $35 \cdot 0$ | 51 | 39 | 39 | 37 | 39 | sw. | SW. | calm | sw. | -177 | -16 | -09 |  | 33 |
| 21. | $29 \cdot 658$ | 29.877 | $29 \cdot 677$ | $29 \cdot 80$ | 29.75 | $30 \cdot 03$ | $48 \cdot 7$ | $49^{\circ} 4$ | $38 \cdot 2$ 33.7 | 50 | 32 | 40 | 34 | 40 | SW, | w. | calm | NE. | 175 | 34 | $\cdot 50$ |  | 38 |
| D 22. | $30 \cdot 090$ | $30 \cdot 445$ | $30 \cdot 112$ | 29.73 | $30 \cdot 34$ | $30 \cdot 58$ | 34.7 | $49^{\circ} 2$ | $33 \cdot 7$ $34 \cdot 6$ | 37 | 33 | 32 | $32 \frac{1}{2}$ | 32 | N. | N. | calm | NE | -333 | ... | - 05 | 0.48 | 33 |
| 23. | 30.530 | 30.551 | 30.494 | $30 \cdot 15$ | $30 \cdot 60$ | $30 \cdot 55$ | $36 \cdot 2$ | 37.4 | 34.6 33.7 | 42 | 30 | 34 | 29 | 36 | W. | W. | N. | sw. | ... | $\ldots$ | ... | 04 | 33 |
| 24. | 30.532 | $30 \cdot 573$ | 30-308 | 30-12 | 30.53 | $30 \cdot 40$ | $36 \cdot 2$ | $40 \cdot 4$ | 33.7 36.2 | 48 | 37 | 36 | 40 | 40 | Sw. | W. | calm | N |  |  |  |  | 32 |
| 25. | 30.088 | 30.108 | $29 \cdot 989$ | $29 \cdot 65$ | 30.13 | 30.20 | $43 \cdot 0$ | 43.8 | $36 \cdot 2$ $34 \cdot 4$ | 49 | 32 | 43 | 39 | $38 \frac{1}{2}$ | w var. | w. | w. | N | ... |  |  |  | 37 |
| 26. | $30 \cdot 156$ | $30 \cdot 388$ | 30.178 | $29 \cdot 87$ | $30 \cdot 50$ | $30 \cdot 60$ | $35 \cdot 3$ | $47 \cdot 3$ | 34.4 | 38 | 30 | 35 | 33 | 32 | N. | NE. | calm | NE | ... | .. | $\cdot 05$ |  | 32 |
| 27. | $30 \cdot 340$ | $30 \cdot 374$ | $30 \cdot 246$ | 30.05 | $30 \cdot 58$ | $30 \cdot 42$ | $33 \cdot 3$ | 37.5 | 31-2 | 35 | 26 | $36 \cdot 5$ | 31 | 26 | NE. | NE. | calm | N . | . | ... |  |  | 28 |
| $\begin{array}{r}28 . \\ \hline 29\end{array}$ | $30 \cdot 006$ | 30.064 | $29 \cdot 682$ | $29 \cdot 73$ | 30.03 | $29 \cdot 74$ | $32 \cdot 7$ | $35 \cdot 6$ | 31.6 31.6 | 36 | 29 | 32 | 27 | 30 | NW. | NE. | calm | NW. |  |  | -07 |  | 29 |
| C29. | 29.548 | 29.591 | $29 \cdot 155$ | $29 \cdot 22$ | 29.50 | $29 \cdot 29$ | $33 \cdot 2$ | $37 \cdot 3$ | 31.6 | 39 | 17 | 29 | 27 | 22 | w. | W. | calm | sw. |  |  |  |  | 28 |
| 30. 31. | $29 \cdot 226$ | $29 \cdot 284$ | $29 \cdot 039$ | $28 \cdot 92$ | 29.23 | $29 \cdot 30$ | 27.7 | 36:0 | 23.7 25.5 | 34 | 27 | 24 | 26 | 25 | SW. | w. | NW. | NW. | -194 |  | -04 |  | 23 |
| 31. | 29.150 | $29 \cdot 729$ | $29 \cdot 141$ | 28.83 | 29.58 | 29.97 | $30 \cdot 5$ | $32 \cdot 3$ | 25 | 37 | 22 | 29 | 31 | 30 | w. | w. | NW | W |  |  | $\cdot 19$ |  | 23 23 |
| Mean. | 29.904 | 30.033 | 29.804 | 29.49 | 29.790 | 30.450 | $38 \cdot 2$ | $43 \cdot 3$ | 34.7 | $43 \cdot 74$ | $31 \cdot 64$ | $36 \cdot 1$ | 33. | 7 |  |  |  |  |  | $1 \cdot 27$ | 40 | $2 \cdot 44$ |  |


[^0]:    on the influence of native magnesia on the germination, vegetation, and fructification of vegetables. by angelo abBene.

[^1]:    on the influence of native magnesia on the germination, vegetation, and fructification of vegetables. by angelo abBene.

[^2]:    on the influence of native magnesia on the germination, vegetation, and fructification of vegetables. by angelo abBene.

[^3]:    on the influence of native magnesia on the germination, vegetation, and fructification of vegetables. by angelo abBene.

